

# 405-8H and 405-8HT LOUDSPEAKERS



## DESCRIPTION

The Altec Lansing Model 405-8H and 405-8HT loudspeakers are compact 4" speakers that provide the utmost in performance obtainable from speakers of this size. Clear, intelligible speech and good music reproduction are ensured because of the extended 60-15,000 Hz range.

Loudspeaker impedance rating is 8 ohms. The Model 405-8HT incorporates a 70-volt line transformer for applications in distributed sound systems.

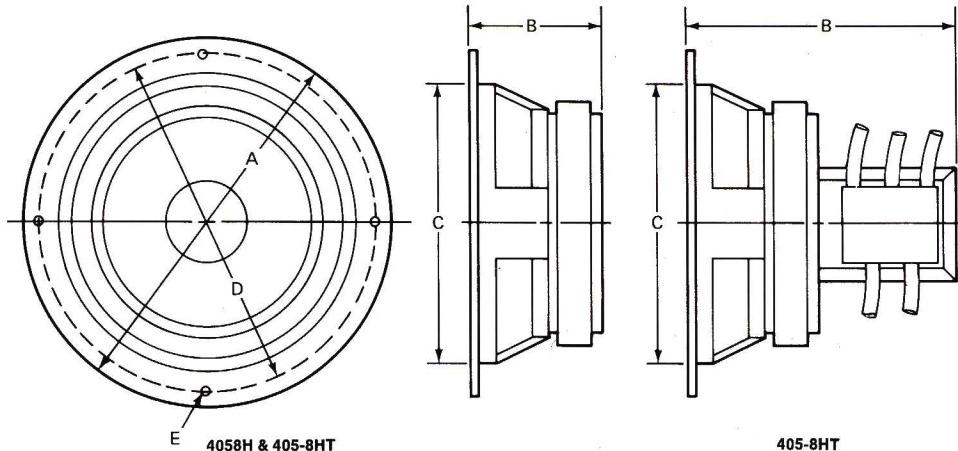
These quality loudspeakers are designed for continuous, trouble-free service. The frame and housing of the magnetic structures are fabricated of heavy-gauge steel. The small size of the speakers allows either front or rear mounting in walls, partitions, ceilings, and into volumes as low as 0.1 cubic feet.

## SPECIFICATIONS

<b>Power Rating:</b>	15 watts continuous pink noise (above 50 Hz)
<b>Frequency Response:</b>	60-15,000 Hz
<b>Pressure Sensitivity:</b>	91 dB SPL measured at 4' on axis with 1 watt input of pink noise, band-limited from 500-3000 Hz (Ref.: 0 dB = 0.0002 dyne/cm <sup>2</sup> )
<b>Impedance:</b>	8 ohms
<b>25/70 Volt Taps:</b>	4, 2, 1, 0.5 watts (Model 405-8HT only)
<b>Insertion Loss:</b>	1.0 dB max. (405-8HT only)
<b>Transformer Frequency Response:</b>	±1 dB, 100-10,000 Hz (Model 405-8HT only)
<b>Nominal Free-Air Cone Resonance:</b>	120 Hz
<b>Nominal Distribution Pattern:</b>	90°
<b>*Distribution Pattern With Polar to Planer Correction:</b>	107° at 2 kHz 69° at 4 kHz 1"
<b>Voice Coil Diameter:</b>	Ceramic (V)
<b>Magnet Structure—</b>	1 3/4 pounds
<b>Magnet Type:</b>	10,250 gauss
<b>Magnet Weight:</b>	
<b>Flux Density:</b>	
<b>Construction—</b>	Structurally reinforced die-cast aluminum
<b>Frame (Basket):</b>	Molded fiber
<b>Cone:</b>	High-compliance foam surround
<b>Cone Suspension:</b>	Copper
<b>Voice Coil:</b>	Kapton®**
<b>Voice Coil Support Material:</b>	0.125" max. peak to peak
<b>Cone Excursion:</b>	0.205" (0.52 cm) spade lug type
<b>Terminals—</b>	Pigtails
<b>Speaker:</b>	
<b>Transformer:</b>	3.812" (9.68 cm) diameter (rear mounted)
<b>Mounting Data—</b>	4.125" (10.48 cm) diameter (front mounted)
<b>Baffle Opening:</b>	
<b>Mounting Bolt Centers:</b>	4 equally spaced slots 90° apart on 4.75" (12.07 cm) diameter circle
<b>Dimensions—</b>	5.132" (13.49 cm) diameter
<b>Model 405-8H:</b>	2.125" (5.40 cm) depth
<b>Model 405-8HT:</b>	4.063" (10.32 cm) depth
<b>Weight—</b>	2 lbs. 1 oz. (0.94 kg)
<b>Model 405-8H:</b>	2 lbs. 9 oz. (1.2 kg)
<b>Model 405-8HT:</b>	
<b>Color:</b>	ALTEC black

\*See Technical Letter No. 257, "Sound Distribution on a Plane Normal to a Loudspeaker Axis."

\*\*Kapton® is a registered trademark of DuPont.



MOUNTING DIMENSIONS	MODEL 405-8H	MODEL 405-8HT	405-BHT	LEAD COLOR	WATTS
(A) LOUDSPEAKER DIAMETER:	5.312" (13.49 cm)	5.312" (13.49 cm)		Black	Common
(B) LOUDSPEAKER DEPTH:	2.125" (5.40 cm)	4.063" (10.32 cm)		Green	4W
(C) BAFFLE OPENING DIAMETER: (Front Mounted)	4.125" (10.48 cm)	4.125" (10.48 cm)		Yellow	2W
(C) BAFFLE OPENING DIAMETER: (Rear Mounted)	3.812" (9.68 cm)	3.812" (9.68 cm)		Red	1W
(D) BOLT CIRCLE DIAMETER:	4.75" (12.07 cm)	4.75" (12.07 cm)		Brown	1/2 W
(E) BOLT HOLE SLOTS:	0.20" (0.52 cm) x 0.25" (0.64 cm)	0.20" (0.52 cm) x 0.25" (0.64 cm)			

#### ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

##### MODEL 405-8H

The loudspeaker shall meet the following performance and structural criteria. Power rating, 15 watts. Frequency response, uniform from 60-15,000 Hz. Pressure sensitivity, 91 dB SPL when measured at 4' on axis with 1 watt input of band-limited pink noise from 500-3000 Hz (Ref.: 0 dB = 0.0002 dyne/cm<sup>2</sup>). Impedance, 8 ohms. Nominal free-air cone resonance, 120 Hz. The voice coil shall have a diameter of 1" and shall operate in a magnetic field of 10,250 gauss derived from a ceramic (V) magnet weighing at least 1 3/4 pounds. The loudspeaker shall be able to perform efficiently in a volume as low as 0.1 cubic feet. The loudspeaker frame shall be of solid, welded steel construction. The speaker terminals shall be of the spade lug type. Dimensions, 5.312" diameter x 2.125" deep. Weight, 2 pounds, 1 ounce.

The loudspeaker shall be the Altec Lansing Model 405-8H.

##### MODEL 405-8HT

The loudspeaker shall meet the following performance and structural criteria. Power rating, 15 watts. Frequency response, uniform from 60-15,000 Hz. Pressure sensitivity, 91 dB SPL when measured at 4' on axis with 1 watt input of band-limited pink noise from 500-3000 Hz (Ref.: 0 dB = 0.0002 dyne/cm<sup>2</sup>). Impedance, 8 ohms. Nominal free-air cone resonance, 120 Hz. The voice coil shall have a diameter of 1" and shall operate in a magnetic field of 10,250 gauss derived from a ceramic (V) magnet weighing at least 1 3/4 pounds. The loudspeaker shall be able to perform efficiently in a volume as low as 0.1 cubic feet. The loudspeaker frame shall be of solid, welded steel construction. The speaker terminals shall be of the spade lug type. Dimensions, 5.312" diameter x 4 1/8" deep. Weight, 2 pounds, 9 ounces.

A 70-volt line transformer shall be incorporated for use in distributed systems, and shall have a frequency response of ±1 dB from 100-10,000 Hz, with maximum insertion loss of 1.0 dB and primary wattage taps of 4, 2, 1 and 0.5 watts.

The loudspeaker shall be the Altec Lansing Model 405-8HT.

ROW 1 (1 : 2)



ROW 2 (2 : 6)



ROW 3 (6 : 8)



**ALTEC  
LANSING**

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